

## CLAIMS

The invention claimed is:

- 5 1. A device comprising:  
a memory; and  
a processor coupled with the memory, wherein the processor is adapted to  
generate a schedule for exchanging data with only a first peripheral device  
during a first time window, and for exchanging data with only a second peripheral  
10 device after the first time window;  
transmit at least one multi-poll scheduling frame that encodes the schedule;  
exchange data with the first peripheral device after the scheduled first time  
window starts;  
complete exchanging data with the first peripheral device before the first time  
15 window ends;  
then transmit a rescheduling frame; and  
then exchange data with the second peripheral device before the first time  
window ends.
- 20 2. The device of claim 1, wherein  
the rescheduling frame is a null frame.
3. The device of claim 1,  
wherein the generated schedule provides for exchanging data with only the  
25 second peripheral device during a second time window, and that the second time  
window alternate with the first time window according to a periodicity,  
and the processor is further adapted to:  
encode data about the periodicity in the multi-poll scheduling frame.
- 30 4. The device of claim 3, wherein  
the rescheduling frame is a null frame.
5. A device comprising:  
a memory; and

a processor coupled with the memory, wherein the processor is adapted to receive at least one multi-poll scheduling frame;

decode from the received multi-poll scheduling frame a schedule for a first time window and for a subsequent second time window during which to exchange data;

during the first time window, receive a rescheduling frame;  
reschedule the second time window in response to the rescheduling frame; and  
then exchange data during the rescheduled second time window before the first time window ends.

6. The device of claim 5, wherein  
the second time window is rescheduled to start immediately after the rescheduling frame.

7. The device of claim 5, wherein  
the rescheduling frame is a null frame.

8. The device of claim 5, wherein the processor is further adapted to:  
decode from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.

9. The device of claim 8, wherein  
the second time window is rescheduled to start immediately after the rescheduling frame.

10. The device of claim 8, wherein  
the rescheduling frame is a null frame.

11. An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:  
generating a schedule for exchanging data with only a first peripheral device during a first time window, and for exchanging data with only a second peripheral device after the first time window;

transmitting at least one multi-poll scheduling frame that encodes the schedule;

exchanging data with the first peripheral device after the scheduled first time window starts;

5            completing exchanging data with the first peripheral device before the first time window ends;

            then transmitting a rescheduling frame; and

            then exchanging data with the second peripheral device before the first time window ends.

10

12.        The article of claim 11, wherein  
            the rescheduling frame is a null frame.

15

13.        The article of claim 11,  
            wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity,  
            and the instructions further result in:  
            encoding data about the periodicity in the multi-poll scheduling frame.

20

14.        The article of claim 13, wherein  
            the rescheduling frame is a null frame.

25

15.        An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:  
            receiving at least one multi-poll scheduling frame;  
            decoding from the received multi-poll scheduling frame a schedule for a first time window and for a subsequent second time window during which to exchange data;

30

            during the first time window, receiving a rescheduling frame;  
            rescheduling the second time window in response to the rescheduling frame;  
            and  
            then exchanging data during the rescheduled second time window before the first time window ends.

16. The article of claim 15, wherein  
the second time window is rescheduled to start immediately after the  
rescheduling frame.

5

17. The article of claim 15, wherein  
the rescheduling frame is a null frame.

18. The article of claim 15, wherein the instructions further result in:  
10 decoding from the received multi-poll scheduling frame periodicity data about  
alternating the first time window and the second time window.

19. The article of claim 18, wherein  
the second time window is rescheduled to start immediately after the  
15 rescheduling frame.

20. The article of claim 18, wherein  
the rescheduling frame is a null frame.

21. A method comprising:  
generating a schedule for exchanging data with only a first peripheral device  
during a first time window, and for exchanging data with only a second peripheral  
device after the first time window;

transmitting at least one multi-poll scheduling frame that encodes the  
25 schedule;

exchanging data with the first peripheral device after the scheduled first time  
window starts;

completing exchanging data with the first peripheral device before the first  
time window ends;

30 then transmitting a rescheduling frame; and

then exchanging data with the second peripheral device before the first time  
window ends.

22. The method of claim 21, wherein

the rescheduling frame is a null frame.

23. The method of claim 21,  
wherein the generated schedule provides for exchanging data with only the  
5 second peripheral device during a second time window, and that the second time  
window alternate with the first time window according to a periodicity,  
and further comprising:  
encoding data about the periodicity in the multi-poll scheduling frame.

10 24. The method of claim 23, wherein  
the rescheduling frame is a null frame.

25. A method comprising:  
receiving at least one multi-poll scheduling frame;  
15 decoding from the received multi-poll scheduling frame a schedule for a first  
time window and for a subsequent second time window during which to exchange  
data;  
during the first time window, receiving a rescheduling frame;  
rescheduling the second time window in response to the rescheduling frame;  
20 and  
then exchanging data during the rescheduled second time window before the  
first time window ends.

26. The method of claim 25, wherein  
25 the second time window is rescheduled to start immediately after the  
rescheduling frame.

27. The method of claim 25, wherein  
the rescheduling frame is a null frame.

30 28. The method of claim 25, further comprising:  
decoding from the received multi-poll scheduling frame periodicity data about  
alternating the first time window and the second time window.

29. The method of claim 28, wherein  
the second time window is rescheduled to start immediately after the  
rescheduling frame.

5 30. The method of claim 28, wherein  
the rescheduling frame is a null frame.

FOR THE